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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,858

10/27/2006

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EXAMINER

LOEWE, ROBERT S

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

06/25/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,858	Applicant(s) UEDA ET AL.	
	Examiner ROBERT LOEWE	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/2/09 has been entered.

Response to Arguments

A certified English-language translation of Toda et al. is included with this Office action per Applicant's request.

Applicant's arguments/remarks regarding the prior art rejection of Toda et al. in view of Watabe et al. have been fully considered and is not found to be persuasive.

Applicants argue that both Toda et al. and Watabe et al. are drawn to sealing compositions while the instant claims are drawn to pressure-sensitive adhesive compositions. Because of this, Applicants argue that it is impossible to arrive at an optimal composition for a pressure sensitive adhesive product from a reference merely teaching a broad scope of a sealing material. First, the claims are drawn to a composition. The question which needs to be addresses is: do the combined teachings of Toda et al. and Watabe et al. render obvious the claimed composition? The Examiner has maintained in the previous Office action (and again below) that the teachings of Toda et al. and Watabe et al. would lead a person having ordinary skill in the art to prepare a composition according to the instant claims. Since Toda et al. and

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Watabe et al. render obvious the claimed ingredients and claimed amounts, it inherently follows that the compositions would be capable of serving as pressure-sensitive products. A chemical composition and its properties are inseparable. Second, sealing materials do not require the formation of a permanent bond; indeed many sealant compositions benefit from having the ability to reseal. There is nothing preventing a sealing material from being removed from a substrate and then being reapplied (resealable materials).

Applicants argue that neither Toda et al. nor Watabe et al. teaches the combination of the claimed ingredients (A), (B) and (C). The Examiner contends that rooted in the teachings of Watabe et al. is motivation to modify the compositions of Toda et al. with those of Watabe et al. Specifically, instant claims 1 and 8 teach a composition comprising ingredients (A), (B) and (C). Toda et al. explicitly teaches compositions which satisfy the limitations of components (A) and (C) of the instant claims. Watabe et al. explicitly teaches compositions which satisfy the limitations of components (A) and (B) of the instant claims. The compositions of Toda et al. are taught to include plasticizers, such as dioctylphthalate (examples). Watabe et al. teaches that the addition of component (B) acts to reduce the viscosity of the coating compositions while maintaining good pliability. Further, component (B) does not display high migration properties compared to more conventional plasticizer additives, including dioctylphthalate (examples). Since Watabe et al. teaches that component (B) is superior in many ways versus other known plasticizer additives, such as those exemplified by Toda et al., it is submitted that a person having ordinary skill in the art would have been motivated to replace the plasticizers taught by Toda et al. with component (B) as taught by Watabe et al. Therefore, Toda et al. and Watabe et

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al. are believed to be properly combinable and there is a strong teaching to modify the compositions taught by Toda et al. based on the teachings present in Watabe et al.

Applicants further argue that the present invention demonstrates unexpected improvement in adhesive strength. Applicants argue that the addition of component (B) serves to unexpectedly improve the adhesive strength of the pressure-sensitive adhesive compositions. However, any showing of unexpected results must be commensurate in scope with the base claim. Based on the data provided in the working examples, this does not appear to be the case. Specifically, component (A) of instant claim 1 is claimed to have a molecular weight range of from 15,000 to 100,000; however, the specific examples which satisfy this limitation have molecular weights of 26,000 and 31,000. Moreover, component (B) of instant claim 1 is claimed to have a molecular weight range of from 500 to 15,000; however, the specific examples which satisfy this limitation have molecular weights of 1,200 and 4,000. Further, only one amount of tackifier resin is employed in the working examples (50 parts by weight). Further, there are no amounts given for components (A) and (B) of the instant claims. Specifically, the instant claims allow, for example, 99.99 parts of component (A) and 0.01 parts of component (B) as well as 0.01 parts of component (A) and 99.99 parts of component (B), which would certainly lead to compositions with different final properties, including adhesive strength.

Last, Applicants argue that the presence of the hydrolyzable groups in component (B) is responsible for the improvement in the adhesive strength. Specifically, example 1 and comparative example 1 of Applicants instant specification show a 4-fold increase in the adhesive strength when employing the hydrolyzable silyl-capped polymers versus analogous polymer which do not have any silyl-capping. The polyether polyol starting materials do not have any

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hydrolyzable silane groups and do not possess the high reactivity to bond to surfaces of a substrate. The silyl-group containing polymers [component (B)] have such reactivity which inherently leads to reactions between the silyl groups and the surface of the substrate. Indeed, ideal adhesion promoters contain hydrolyzable silane groups of low molecular weight and low viscosity. Component (B) of the instant claims meets the criteria for an adhesion promoter. Therefore, it is submitted by the Examiner that a person having ordinary skill in the art would have expected an increase in adhesive strength when employing component (B) which has hydrolyzable silyl groups, when compared to compositions which do not have such groups present. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (JP 05-302026) in view of Watabe et al. (JP 05-059267). A machine-translated version of Toda et al. will be relied upon for the rejection below and a certified English-language translation has been requested and will be included in the next Office action. A certified English-language translation of Watabe et al. has already been obtained and was relied upon in the previous Office action.

Toda et al. teaches a composition comprising (A) an oxyalkylene polymer having a molecular weight of from 4,000-30,000 and having at least two hydrolyzable silyl-groups at the chain ends (paragraph 0002), such oxyalkylene polymers being prepared by a hydrosilylation reaction of an allyl-terminated polyether with the silane of formula (1). Formula (1) of Toda et al. satisfies the structural limitations of formula (1) of the instant claims. Integer "a" can include 0 or 1, which inherently yields a polyether having greater than 2 hydrolyzable silanes per polymer. Toda et al. further teaches 3-60 parts of a resin (paragraph 0019) such as rosin ester resins (paragraphs 0015-0016). The amounts of polymer (a) and tackifier (c) as taught by Toda et al. overlap with those ranges recited in instant claims 1 and 8.

Toda et al. does not explicitly teach the addition of an oxyalkylene polymer having the structural and molecular weight limitations of instant claim 1 [component (B) of instant claim 1]. However, Watabe et al. does teach the addition of such oxyalkylene polymers (paragraphs 0030-0036) which substantially comprise polyethers and preferably have from 0.5 to 1.2 hydrolyzable groups per polymer and preferably have molecular weights of from 2,000 to 4,000. The

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molecular weight range and hydrolyzable group content satisfy the limitations of component (B) of instant claim 1. Toda et al. and Watabe et al. are combinable because they are from the same field of endeavor, namely, curable compositions comprising silyl-terminated polyethers, and curing catalysts. Further, both Toda et al. and Watabe et al. are interested in preparing compositions which are used as sealants. At the time of the invention, a person having ordinary skill in the art would have found it obvious to add the low molecular weight oxyalkylene polymers as taught by Watabe et al. into the compositions taught by Toda et al. and would have been motivated to do so since Watabe et al. teaches that the low molecular weight oxyalkylene polymers are effective plasticizers and display low migration, allowing the compositions to be pliable (paragraphs 0003 and 0007). Watabe et al. further teaches that the low molecular weight oxyalkylene polymers are superior plasticizers when compared to other known plasticizers such as phosphoric acid esters, and aromatic carboxylic acid esters (paragraphs 0006 and 0007). Toda et al. teaches the addition of plasticizers which include the same phosphoric acid esters and aromatic carboxylic acid esters plasticizers as taught by Watabe et al. (paragraph 0023 of Toda et al.). Based on the teachings of Watabe et al., a person having ordinary skill in the art would be motivated to employ the oxyalkylene polymer plasticizers as taught by Watabe et al. into the compositions as taught by Toda et al. because such oxyalkylene polymer plasticizers have improved properties over the plasticizers taught by Toda et al. as shown by Watabe et al. (Table 1). Embodiment 5 of table 1 shows the employment of dioctylphthalate instead of the oxyalkylene polymer plasticizer showed a dramatically higher weight loss.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./
Examiner, Art Unit 1796
9-Jun-09

/Randy Gulakowski/
Supervisory Patent Examiner, Art Unit 1796